

**SYSTEM FOR TRANSPORTING AND SELECTIVELY SORTING  
PARTICLES AND METHOD OF USING THE SAME**

**Abstract**

A system for transporting and selectively sorting particles includes a first wall and a traveling wave grid extending along the first wall. The system includes a second wall having a passage extending therethrough and a gate operatively associated with the passage. A controller is adapted to output a multi-phase electrical signal. The controller is in communication with the traveling wave grid and the gate. A method of using the system is also provided.